Application No.: 10/042,232 Reply to Office Action of: October 1, 2003

AMENDMENTS TO THE CLAIMS

Listing of Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

(Previously Presented) A method for preparing an asymmetric (meth)acrylate crosslinking agent

comprising reacting an hydroxyacrylate of formula (II)

 CH_2 = $CHC(O)O-[-(CH_2)_x-CHR-O-]_n-H$ (II)

with methacrylic anhydride to form an asymmetric (meth)acrylate crosslinking agent of formula (I) and methacrylic acid

 $\label{eq:ch2} CH_2\text{=}CHC(O)O\text{-}[\text{-}(CH_2)_x\text{-}CHR\text{-}O\text{-}]_z\text{--}C(O)CCH_3\text{=}CH_2 \qquad (I)$ wherein

x = 1, 2, or 3,

R = H or CH_3 , and

n = 1-100;

wherein a reaction product containing the asymmetric (meth)acrylate crosslinking agent comprises less than 2 wt.% of a diacrylate, dimethacrylate, or mixture thereof.

2. (Canceled)

2 / (Original) The method as claimed in claim 1, further comprising reacting an hydroxyacrylate of formula (II) and methacrylic acid in the presence of an acid catalyst.

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- 3 / (Original) The method as claimed in claim 3, wherein the acid catalyst is present at from 0.1 to 5 wt.%.
- 4 5. (Original) The method as claimed in claim 1, wherein the temperature is from 0 to 100°C.
- 5 s. (Original) The method as claimed in claim 1, wherein the acrylate ester and methacrylic acid are reacted for from 0.5 to 36 hours.
- (/(Original) The method as claimed in claim 1, wherein x = 1, R = H and the hydroxyacrylate is selected from the group consisting of diethylene glycol acrylate, triethylene glycol acrylate, tetraethylene glycol acrylate, and mixtures thereof.
- 7/8. (Original) The method as claimed in claim 1, wherein the hydroxyacrylate is a polypropylene glycol acrylate with an average molecular weight of about 475.
- (Original) The method as claimed in claim 1, wherein the hydroxyacrylate is based on a polytetrahydrofuran chain.
- 9 10. (Original) The method as claimed in claims, wherein the hydroxyacrylate is 4-hydroxybutyl acrylate.

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ON. (Original) The method as claimed in claim, wherein the acid catalyst is selected

from the group consisting of sulfuric acid, aromatic sulfonic acids, aliphatic sulfonic acids, aromatic sulfonic acids bound to a polymeric resin, aliphatic sulfonic acids bound to a polymeric resin, and phosphonic acids.

(Original) The method as claimed in claim 1, wherein a ratio of methacrylic anhydride to hydroxyacrylate is about 1:1.

12 (Original) The method as claimed in claim 1, further comprising removing methacrylic acid from a reaction mixture by distillation.

 (Withdrawn) A polymethylmethacrylate polymer comprising the crosslinking agent of claim 1.

15. (Withdrawn) The polymethylmethacrylate polymer claimed in claim 14, comprising 3-20 wt.% of an hydroxyacrylate of formula (II).

16. (Withdrawn) The polymethylacrylate claimed in claim 14, wherein the polymethylmethacrylate is a super absorber.

17. (Withdrawn) The polymethylmethacrylate claimed in claim 14, wherein the polymethylmethacrylate is a thickening agent. Application No.: 10/042,232 Reply to Office Action of, October 1, 2003

13 ye. (Original) The method as claimed in claim 1, wherein a ratio of the hydroxyacrylate and the methacrylic anhydride is less than 1, further comprising adding a low molecular alcohol to a reaction mixture to destroy an excess of methacrylic anhydride.

1479. (Previously Presented) The method as claimed in claim 1, wherein a content of impurities containing chlorine is <0.1 wt.%.

15 2/2. (Previously Presented) The method as claimed in claim 1, wherein a reaction product containing the asymmetric (meth)acrylate crosslinking agent comprises less than 1 wt/% of a discrylate or dimethacrylate.